

Remarks

Claims 1-3, 5 and 6 are under consideration. Claims 3, 5 and 6 have been amended. Claims 4 and 7-11 have been cancelled. Reconsideration of claims 1-3, 5 and 6 is respectfully requested.

Claim Objection

The Action objects to claims 1 and 2 as to matters regarding the deposit of those biological materials as being incomplete. In other words, claims 1 and 2 were objected to for failure to submit the Certificate of Deposit and Viability of deposited IC1 and IAC1 with the American Type Culture Collection in Manassas, VA.

In response, applicants wish to clarify that the Certificate of Deposit and Viability of deposit of IC1 and IAC1 with the American Type Culture Collection in Manassas, VA., was submitted by Facsimile at 571-273-8000, on September 9, 2005. (Exhibit 1)

A Copy of the Budapest Treaty International is also submitted herewith as Exhibit 2.

In addition, amendments in the specification are submitted to indicate that the deposits have been made. No new matter is added since the Accession numbers are not stated. Therefore, the objection of claims 1 and 2 should be withdrawn.

35 U.S.C. § 112, first paragraph

The Action rejects claims 1 and 2 under 35 U.S.C. 112, first paragraph, as failing to provide enablement for

- 1) a method of generating any transgenic C57BL/6 mouse and

2) a method of introducing any albino C57BL/6 ES cell into a C57BL/6 blastocyst.

In response, without necessarily agreeing with the above rejection, applicants have amended claims 3, 5 and 6 in compliance with the allowable matter pointed out in the Action. Claims 7 and 8 have been cancelled.

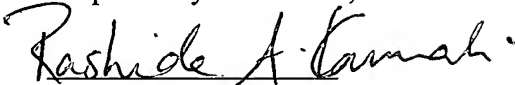
35 U.S.C. § 112, second paragraph

Claims 3, 5, 6, and 7 were rejected because claim 3 used the phrase C57 mice. Claim 5 was rejected for a typographical error missing “a” between “into” and “chimeric”.

In response, claims 3 and 5 have been amended and the above informalities have been corrected. Claim 7 has been cancelled.

Therefore the rejection of claims 3, 5 and 6 should be withdrawn, and a Notice of Allowance of claims 1, 2, 3, 5, and 6 be issued..

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Respectfully Submitted,

Rashida A. Karmali, Esq.
Reg. No. 43,705
Attorney for Applicants
99 Wall Street, 10th Floor
New York, NY 10005
Phone (212) 651-9653
Fax (212) 651-9654

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Rashida A. Karmali
Attorney for Applicants

Rashida A. Karmali
Signature
2/14/06



Eight albino C57 ES cell lines from C57BL/6J-Tyr^{c-2J} (IAC1-IAC8) were established.

IG and ICA₁ have been deposited with the American Type Culture Collection, Manassas, VA 20108.

Example 2

Generation of "Black into Black Chimeras"

Blastocysts were harvested by flushing uterus of 3.5 dpc black C57BL/6J mice. Genetically modified black C57 ES cells were injected into black blastocyst donors to produce a black germline transmission. There is no record in prior art of the above procedure. Since color changes are not helpful in detecting the chimeras, PCR and Southern Blot techniques were used to evaluate the chimeras. Results are given in Fig. 10 and Fig. 11, respectively. The advantages of the above technique are pure background, high efficiency (100%) germ line transmission and reduction in cost and time for producing the animals for use in experimentation. Fig. 8 summarizes the results of germline transmission of the black into black scheme.

Example 3

Generation of "Black into White" Chimeras

Genetically modified C57 ES cells (black) were injected into albino C57BL/6 (white) blastocyst donors to produce chimeric germline transmission. Fig 12. The only record in prior art of injecting ES cells (black) into albino C57BL/6 (white) is by Schuster-Gossler, K et al Biotechniques 31:1026-1034 (2001). However, these authors used wild type ES cells (black) and not genetically modified ES cells (black). Fig. 12 and Fig. 13 describe the results for chimeras and germline transmission for above experiments.

Example 4.

Generation of "White into Black Chimeras"